

WE CLAIM:

1. A method for assembling a fuel delivery system comprising:
providing a reservoir assembly having a reservoir unit;
thermoforming a first shell portion and a second shell portion of
5 a fuel tank;

fixing said reservoir assembly to one of said first and second
shell portions; and

sealingly connecting said first and second shell portions to form
a fuel tank to enclose said reservoir assembly within said fuel tank.

10 2. The method of claim 1, wherein said reservoir assembly is fixed
to said one of said first shell and said second shell portions using a plurality of
weld feet.

15 3. The method of claim 2, wherein said weld feet comprise heat-
deformable structures attached to said reservoir assembly capable of forming
a molecular bond with said one of said first shell and said second shell
portions.

20 4. The method of claim 1, further comprising forming a fuel tank
access aperture in at least one of said first and second shell portions for
allowing access to said reservoir assembly.

5. The method of claim 4, further comprising:

providing a flange assembly;

removably securing said flange assembly to said at least one of said first and second shell portions for sealing said fuel tank, wherein said flange assembly is disposed within said fuel tank access aperture; and

removing said flange assembly after said first and second shell portions are sealingly connected together to allow access to said reservoir assembly.

6. A method for assembling a fuel delivery system comprising:

thermoforming a first shell portion and a second shell portion of a fuel tank;

providing a reservoir assembly having a reservoir unit;

fixing said reservoir assembly to one of said first and second shell portions;

sealingly connecting said first and second shell portions to form a fuel tank to at least partially enclose said reservoir assembly within said tank; and

forming a fuel tank access aperture in at least one of said first and second shell portions.

7. The method of claim 6, wherein said reservoir assembly is fixed to said one of said first shell and said second shell portions using a plurality of weld feet.

8. The method of claim 7, wherein said weld feet comprise heat-deformable structures attached to said reservoir assembly capable of forming a molecular bond with said one of said first shell and said second shell portions.

9. A fuel delivery system comprising:
a plurality of thermoformed shell portions for a fuel tank, at least one of said thermoformed shell portions having a fuel tank access aperture; and

a non-integral reservoir assembly comprising a reservoir unit, said reservoir unit having its smallest cross-sectional area being greater than the area of said fuel tank access aperture, said reservoir assembly configured to store fuel and said reservoir assembly being attached to at least one of said thermoformed shell portions inside said fuel tank.

10. The fuel delivery system of claim 9 wherein said non-integral reservoir assembly further comprises an auxiliary pump, a fuel pump, a reservoir cover, an inline fuel filter assembly, a fuel pressure regulator assembly, and a level sensor assembly mounted to said reservoir unit.

11. The fuel delivery system of claim 9 further comprising a plurality of heat-deformable weld feet capable of forming a molecular bond with said said thermoformed shell portions, wherein said reservoir assembly is attached to at least one of said thermoformed shell portions using said weld feet.

12. The fuel delivery system of claim 9 further comprising a flange assembly removably secured to said at least one of said thermoformed shell portions having a fuel tank access aperture.